

***Spring 2014 SPND 422:***  
***Differentiated Instruction Using Technology Across the Curriculum***

<b>Instructor</b>	Jennifer Edge-Savage Assistive Technology Graduate Program Director
<b>Office</b>	W304J
<b>Phone</b>	617-803-3254 (cell) 617-521-2559 (office)
<b>Email</b>	<a href="mailto:edge@simmons.edu">edge@simmons.edu</a>
<b>Office hours</b>	30 minutes before and after class and/or by appointment
<b>Class Wiki</b>	<a href="http://landmark422.wikispaces.com">http://landmark422.wikispaces.com</a>
<b>Class Edmodo Group</b>	Code: mwqvue
<b>Class place &amp; time</b>  Landmark	Face-to-face meetings: April 4 & 5 and May 16 & 17 Fridays 5:00 – 10:00 PM & Saturdays 8:30 AM - 4:30 PM  Ongoing asynchronous online activity expected Sunday May 18 through June 3rd (final due)

**Course description:**

Educators are responsible to incorporate instructional and assistive technology into their classrooms and into their students' Individualized Education Plans. This course provides real world experiences, resources and skill development in using the latest software, Internet resources, adaptive equipment and best practices. Make decisions with guidance resulting in practical solutions that can be readily implemented in inclusive classrooms.

This course is offered in 4 modules. The focus is more on learning and curriculum rather than how technology works. Students will gain overview knowledge of a range of potentially helpful technologies as they relate to learner accommodation or curriculum modification strategies.

**Course Dates:**

- **Module #1 – Friday April 4<sup>th</sup> and Saturday April 5<sup>th</sup> (morning)**  
Managing the Learning Environment
- **Module #2 – Saturday April 5<sup>th</sup> (afternoon) through Friday April 18<sup>th</sup>**  
Instructional Activities on the Internet for Curriculum Integration, Intro to UDL, Intro to AT
- **Module #3 – Saturday April 19<sup>th</sup> through Friday May 17<sup>th</sup>**  
Introduction to Assistive Technology, Cognitive and Language Development
- **Module #3 LAB– Friday May 16<sup>th</sup>**  
Hands-on Assistive Technology and iPads for Curriculum Access
- **Module #4 – LAB Saturday May 17<sup>th</sup> through June 3<sup>rd</sup> (Final Due)**  
Hands-on Assistive Technology and Multimedia, Project Based Learning

## Course Objectives:

Upon completion of the course the students will:

1. Identify built-in computer operating system adjustments that might provide useful as accommodations for pre K – 12 learners.
2. Discuss theories, concepts, and methods of accommodating physical, emotional, intellectual and social challenges for learning in the content standards.
3. Use technology to design or modify curriculum, instructional materials, and classroom environments for students with a range of challenges or disabilities.
4. Describe services provided by IEP Team members.
5. Understand Federal and state laws pertaining to assistive technology.
6. Discuss appropriate use of augmentative communication and other assistive technologies.
7. Experience the operation of adaptive devices, both light tech and computer based devices.
8. Describe the potential impact of multimedia and project-based learning as a strategy for differentiated instruction and universal design.

## Required Readings:

1. Hitchcock, Meyer, Rose, Jackson (2002) *Providing New Access to the General Curriculum*. CEC.
2. Hitchcock, et al (2002) *Access, Participation and Progress in the General Curriculum*. US DOE, OSEP.
3. Rose, D (2014) *The Future is in the Margins – 2* – to be published.
4. Meo, G. (2008) *Curriculum Planning for All Learners*. CAST
5. Edyburn, D (2007) *Technology Enhanced Reading Performance*. Reading Research Quarterly.
6. ATsolutions - Family Center for Technology and Disabilities
7. Pisano, L. (2002) *How To Support Students With Learning Differences - The Assistive Technology and Education Connection* LD Resources Online.
8. Bill Henderson (2004) *Struggling Decoders: Reading Fluently and Making Meaning of Text*. O'Hearn Elementary School. Boston.
9. Rose, D, Meyer, A. (1996) *Expanding the Literacy Toolbox*. Scholastic Library Research Paper. Scholastic, Inc.

**Recommended Resources and References:** These will be *among many others* offered in class:

### Vendor Resources:

- Don Johnston <https://www.donjohnston.com> (Solo, CoWriter, Start-to-Finish Books, First Author, Readoutloud Bookshare reader)
- Kurzweil <https://www.kurzweilededu.com> (Kurzweil 3000)
- IntelliTools <https://www.intellitools.com> (Classroom Suite and IntelliKeys)
- Ablenet <https://www.ablenetinc.com> (Switches, Soundingboard AAC App, etc.)
- Bookshare <https://www.bookshare.org> (FREE Digital Text Repository)
- Assistiveware <https://www.assistiveware.com> (SwitchXS, Keystrokes)
- Inspiration Software <https://www.inspiration.com> (Inspiration, Kidspiration, Webspiration, Apps)
- Mayer-Johnson <https://www.mayer-johnson.com> (Boardmaker, Speaking Dynamically Pro)
- Texthelp <https://www.texthelp.com> (Read Write Gold and Read Write for Goolge)

- Inclusive TLC <https://www.inclusivetlc.com> (Chooselt maker, Apps, iPad Peripherals, devices for Low incidence)
- Crick <https://www.cricksoft.com> (Clicker 6, WriteOnline, Clicker Apps)

### **Web 2.0 Tools:**

- Edmodo <https://www.edmodo.com>
- Wikispaces <https://www.wikispaces.com>
- Voicethread <https://www.voicethread.com>
- Google <https://www.google.com>

### **Apps:**

- Evernote
- Explain Everything
- ...and many more to explore

### **Other Resources:**

- <https://www.cast.org>
- <https://www.udlcenter.org>
- <https://www.closingthegap.com>
- <https://www.qiat.org>
- <https://www.fctd.info>
- <https://www.cec.sped.org/>
- <https://www.atia.org>
- <https://www.iste.org>
- <https://www.setsig.iste.wikispaces.net>
- <https://www.joyzabala.com> (SETT Framework for AT)

### **Interactive Whiteboards:**

- <https://www.smarttech.com>
- <https://www.promethean.com>

### **Recommended additional resource Books:**

1. Warger, C. (editor). (2006) Technology and Media for Accessing the Curriculum - Instructional Supports for Students with Disabilities. TAM Division Council for Exceptional Children. Reston, VA
2. M. Pugliese, B. Heiman, J. Castellani, M. Ault, M. Bausch, M., & C. Warger (Eds.), Integrating Technology Into Instruction: What's Working in Inclusive Classrooms. Reston, VA: Technology and Media Division of the Council for Exceptional Children, 2011.
3. Alliance for Technology Access. (2003) *Computer Resources for People with Disabilities*. San Rafael, CA: Author
4. Pugliese, M. (2002) *Stages*. Assistive Technology, Inc. Newton, MA.
5. Scherer, Marcia J. (2004) *Living in the State of Stuck*. How Assistive Technology Impacts the Lives of People with Disabilities. Brookline Books: Cambridge, MA
6. Male, M. (2003). *Technology for Inclusion*. Boston, MA: Allyn and Bacon.

## **Course on Class Wiki, Email, MS Word, and other use of course technologies:**

Most of your course tools are located on the class wiki and edmodo. All course materials will be made available online, visit your course sites regularly for updates and due dates. You will be posting assignments and discussions regularly throughout the course. In class there is a demonstration or an orientation session for the course wiki site so that everyone will become comfortable using it.

There is frequently communication with the class through email, so you will need to ensure that your current email address is available to use. If you use a private email provider such as Hotmail or Gmail, you will need to forward your Simmons email to that private address so that you will be sure to receive all email related to this class. If you don't know how to forward your email, the Help Desk will be glad to show you how to do this.

### **Getting access to wiki and other resources developed to support this course**

Assignments and discussions for this course are available on class wiki. In addition, there is a link to a shared dropbox folder that contains backup course files, extra articles, and model assignments that relate to each course topic: <https://www.dropbox.com/sh/txgrlvhimm4lltp/-445nlpSNt>

To use the course wiki, go <http://landmark422.wikispaces.com>

Go to the website above which is the class wiki. In the upper left you will see a button labeled "JOIN". Please go through the steps of joining wikispaces.

- 1) Go to <http://www.wikispaces.com/>
- 2) Look on the upper right corner of the page and find the "sign in" button.
- 3) When prompted to create a user name and password, please remember to use your name in some recognizable fashion.
- 4) You do not need to make a new wiki - you are just joining wikispaces.
- 5) Check your email used for joining and confirm that you joined.
- 6) Be sure to write down the user name and password and bring this information with you to the course. This is important because I am unable to recover this information for you so be sure you know this when you come.

This process makes you a member of wikispaces. If you are already a member of wikispaces, you can skip this step if your wiki identity clearly reflects your name. You will take the next step to become a member of our class wiki when we are together on the first day of class.

Edmodo:

- 1) Go to <http://www.edmodo.com>
- 2) Select "Sign up now" and "I'm a teacher" (Do NOT sign up as a student, even though you are a "student" for the purposes of this course.)
- 3) Click on "Groups" and select "Join" – type in the course code: mwqvqe
- 4) Follow the prompts
- 5) You will be able to create your own "groups" in the future
- 6) Be sure to write down your username and password.

***For support of any kind with the wiki or Edmodo, please feel free to email your professor.***

## **Academic Requirements:**

<b>Module 1 Learning Environment:</b>	<b>15 points</b>
<b>Module 2 Curriculum Integration:</b>	<b>25 Points</b>
<b>Module 3 Assistive Technology:</b>	<b>30 Points</b>
<b>Module 4 Multimedia Project Based Learning:</b>	<b>10 Points</b>
<b>Final Project:</b>	<b>20 points</b>

### **Learning Environment Module 1: Points possible = 15 - Due April 5th**

Learn the terminology and comfortable operation of personal computers. Topics are selected to develop a foundation for success in classrooms and include setup and assembling components; user safety; adjustment of controls; operating systems and user interfaces; strategies for saving and retrieving data; storage devices; managing memory and types of peripherals such as monitors, printers and network connectivity options.

#### **Scavenger Hunt: 15 Points**

Students will be checked off for the Scavenger Hunt activity addressing built-in accommodations available in computer operating systems and iOS. Direct instruction and hands-on guidance in class directly relates to the questions found on the Scavenger Hunt.

*Scavenger Hunt due by April 5th. You will be checked off so you can keep this valuable reference in your own files.*

### **Curriculum Integration Module 2: Points possible = 25 - Due April 15th**

The key to computer integration in education is selecting software or online activities that meets varying needs. "Does the activity...

- Facilitate both teacher and learner control?
- Encourage flexible and risk-free learning?
- Allow for multi-sensory learning?

Examine activity characteristics that match learning styles. Accommodate student diversity and satisfy curriculum demands.

#### **Discussion: 10 Points**

Each student will participate in the online discussions regarding classroom implementation strategies. Posts will be graded for criteria for good discussions online **[10 points]**. (See Rubric).

##### Discussion Topic #1 Magic Wand

Post **[3 points]** and at least one response to someone else **[2 points]** is due on **April 8th**

##### Discussion Topic #2 in Consideration of Barriers

Post **[3 points]** and at least one response to someone else **[2 points]** is due **on April 11th**

### **Curriculum Integration Written Project: 15 Points**

Students will profile a learner; the select a *web based curriculum activity* for use with the learner and create a lesson plan using the UDL Lesson Builder Template. Include the following details:

- Learner Profile: **[2 points]**
- Lesson Overview **[2 points]**;
- Goals **[2 points]**;
- Methods **[2 points]**;
- Assessment **[2 points]**;
- Materials **[2 points]**; and
- Consideration for Differentiated Instruction and UDL **[2 points]**.
- **Reflection Discussion Post [1Point]**

Turn in your report to Edmodo in *LastnameCI.doc* format by **Tuesday April 15th**.  
(See Rubric on class wiki, edmodo or in dropbox)

*Please select among the websites posted for you in the Curriculum Integration section of the class wiki for designing your plan.* <<http://delicious.com/spnd422>>

### **Module 3 Assistive Technology: Points possible = 30**

#### **Assistive Technology Investigations and Discussions 20 Points**

Students will work online to learn about assistive technology through case studies, presentations, demonstrations, video models and research to practice resources. There are 4 thematic activities and related discussions.

In the Assistive Technology section on eLearning, students will find an assignment for each of these themes. Each assignment is contains a set of Internet-based activities accompanied by an online discussion topic. Students will complete each activity and discussion on or before these assigned dates.

- 1. Learners with Intensive Special Needs
  - Post **[3 points]** and at least one response to someone else **[2 points]** is due on **Tuesday April 22nd**
- 2. Learners with Communication Challenges &/or Autism
  - Post **[3 points]** and at least one response to someone else **[2 points]** is due on **Tuesday April 29<sup>th</sup>**
- 3. Individuals with Disabilities Using Technology in the Community
  - Post **[3 points]** and at least one response to someone else **[2 points]** is due on **Tuesday May 6<sup>th</sup>**
- 4. Resources, Guides, Models and Presentations
  - Post **[3 points]** and at least one response to someone else **[2 points]** is due on **Tuesday May 13<sup>th</sup>**

Each theme discussion is worth **5 points**. **Total points = 20 possible points**. (See Rubric).

### **Hands On Exploration of Assistive Technology LAB**

Discover an overview of major types of adaptive hardware used to equalize learning environments for children with a range of barriers to the classroom curriculum. In addition, find out about software tools available to augment the learning process. Topics addressed include accommodations for motor, vision, hearing, communications, learning and cognitive barriers.

1. How the service delivery team works together
2. Low tech/high tech solutions - a sequence of decisions
3. Program implementation issues
4. Adaptations and alternatives for the mouse
5. Adaptations and alternatives for the keyboard
6. Adaptations and alternatives for the screen
7. Communication devices
8. Scaffolding learning

### **Publisher Exploration Report Assignment = 10 Possible points DUE May 17<sup>th</sup>**

Students are assigned to get to know one publisher's tool in depth and report to the class. Students will:

1. Install a 30-day trial of selected software
2. Explore software and vendor resources available
3. Submit a BRIEF summary/table about the publisher's work. It will include:
  - a. The nature of student needs being addressed
  - b. Technical information about the products
  - c. Potential use in standards-based literacy curriculum
  - d. How features available in the products match or address learning needs
  - e. Comments about the company website

**Submit your report in LastnamePR.Doc format via Edmodo.**

## **Module 4 Multimedia and Project-Based Learning: Points possible = 10**

### **PBL Activity with Multimedia = 9 points Due May 19th**

Students participate in a mock project-based learning activity in class earning **3 points** for adding multimedia elements into the project, **3 points** for team participation and **3 points** for participating in the authentic assessment activity that completes the mock activity. **(9 points total)**

### **Reflection Post = 1 point**

A reflection discussion post **is due** after our face-to-face class meeting by **May 20<sup>th</sup>** (See Rubric). **(1 point)**

## Final Project: Points possible = 20 points

Students, alone or in pre-approved co-operative groups, will develop a plan for integrating the use of computers and/or other technologies into the classroom curriculum. Your plan **must** include: (see Rubric)

- Learner profile [3 points],
- Strategies for consideration of student diversity [3 points],
- Hardware and peripheral choices, including assistive technology [3 points],  
Specify exact configurations details.
- Details of software search and how selections reflect Curriculum Frameworks. [3 points],
- Reflection about your visit to any local computer store to "shop" for equipment [2points], and
- Budget [2 points].
- Project Reflection post DUE June 3<sup>rd</sup> – [1 point]

Please note! This project is ideal to include in a professional portfolio! Your shopping trip and budget are pretend. The goal is for you to see what it would take to implement an ideal learning situation.

***It is not likely that you will find assistive technologies or quality educational software in shopping venues. There is no need to restate this in your paper.***

**Total Final Points possible = 20**

**DUE on or before Tuesday June 3<sup>rd</sup> via Edmodo.**

### Grading of Written Products:

Grading reflects specific content and standard conventions of communication and composition. A rubric will be used to score all written assignments.

### Grading scale

A	94 – 100	C	74 - 76
A-	90 – 93	C-	70 – 73
B+	87 – 89	D+	67 – 69
B	84 – 86	D	64 – 66
B -	80 – 83	D-	60 – 63
C+	77 – 79	F	below 60

### Policies of the Education Department, Simmons College:

This course is fast-paced and failure to keep up with the readings, assignments, and lack of participation and ***less than perfect attendance will prove difficult, if not impossible, to recover from.***

We, the members of the Education Department, believe strongly in the contributions and participation of students during class meeting times, and therefore require attendance at all class sessions. We realize that there may be times when, due to extenuating circumstances, attendance may not be possible. We also recognize that as adult learners, you are the best judge as to whether a situation warrants your absence from class; therefore instructors will neither grant nor deny any excused or unexcused absences. Requests for excused absences must be submitted in writing to the Program Director and the Chair of the Department for individual review within one week of the absence. *For every hour of class missed (or portion thereof), the student's grade will be reflected by a 2 point, per hour, reduction from the final grade.*



Assessment of participation may seem subjective, but as the educator I maintain heightened awareness of the active and passive forms of participation that each of you take in this course. Your participation, by volunteering and speaking out with questions/answers and active participation in online and classroom discussions are observable evidence of the active role. Roles such as note-taking or thoughtful reflection may be indicators of passive participation on your part, but are more difficult to assess and document by the instructor. Participation, in any form, will be taken into account when determining the final grade. *Excellent attendance and active participation will, most likely, serve favorably in the instructor's determination of this element of class responsibility.*

1. If you happen to miss any part class, it is your responsibility to contact a class member so that you will be aware if there has been any change in the class schedule or a change in the assignments, and for course content.
2. Please refrain from using your cell phone and email during class.
3. All written products must be word-processed.
4. Grammatical/spelling errors result in grade point deductions for written products.
5. Assignments are due on time on the dates indicated. Projects will not be accepted after the due date without consequence. For each day that any paper is late, 1/3 of a grade will be deducted. For example, an A paper would become an A- if one day late, a B+ if two days late, etc.

### **Student Need:**

Reasonable accommodations will be provided for students with documented physical, sensory, systemic, cognitive, learning and psychiatric disabilities. If you have a disability and anticipate that you will need a reasonable accommodation in this class, it is important early in the semester that you contact *Disability Services*. (617) 521-2473. Students with disabilities are also encouraged to contact the instructor immediately to discuss their individual needs for accommodations. Accommodations cannot be made except through the Academic Support Center.

### **Plagiarism:**

As stated by Use of Secondary Sources and Collaborative Learning in Papers at Simmons College by Lowry Pei and Tom Hurley, plagiarism is considered an extremely serious offense. The following are some examples of plagiarizing work:

1. A paper copies, literally, or with slight alterations, from another author's work
2. A paper containing many phrases or sentences lifted from some other source(s), without any attempt at attribution, which are glued together with phrases and sentences of the student's own, writing.
3. The student claims authorship of another person's idea by changing the way that they phrased it.
4. One paper submitted for two separate courses without the authorization to do so.

<b>Friday #1 Learning Environment Module 1</b>	<b>Saturday #1 Curriculum Integration Module 2</b>	<b>Blended Learning Curriculum Integration Module 2</b>
5:00-6:00 pm Introduction How to use class Wiki & Edmodo	8:30-9:00 am Discussion	
6:00-7:00 Setup and safety Disks and Storage Floppy disks and drives Hard disks: internal/external Types of media for storage Operating Systems Memory	9:00-12:00 The UDL Framework and Assistive Technology  Presentation: Teaching and Learning with Various Types of Educational Software	<i>Curriculum integration project</i>  <i>Hands-on: research websites across K-12 curriculum</i>  <i>Presenting your findings in a lesson plan format</i>  <i>What are the classroom implications? (Online discussions)</i>
7:00 – 7:30 Dinner Break	12:00-1:00 Lunch Break	
7:30 – 10:00 pm Scavenger Hunt System software: Control Panels & System Preferences Setting controls for the learning environment Printing and Connecting Using Peripherals  Word Processing & Sharing Files	1:00-4:30  Theoretical framework Instructional Design  Software selection strategies  Discussion – Curriculum Integration and online assignments	<i>Curriculum integration project</i>  <i>Hands-on websites across K-12 curriculum</i>  <i>Presenting our findings in a lesson plan format</i>  <i>What are the classroom implications? (Online discussions)</i>
Assignment: Study either Apple or Microsoft Accessibility website to support your operating system  <a href="http://www.apple.com/accessibility/">http://www.apple.com/accessibility/</a>  <a href="http://www.microsoft.com/enable/">http://www.microsoft.com/enable/</a>	<b>Read</b> 1. Hitchcock, Meyer, Rose, Jackson (2002) <i>Providing New Access to the General Curriculum</i> . CEC. 2. Hitchcock, et al (2002) <i>Access, Participation and Progress in the General Curriculum</i> . US DOE, OSEP. 3. Rose, D (2014) <i>The Future is in the Margins – 2</i> – to be published. 4. Meo, G. (2008) <i>Curriculum Planning for All Learners</i> . CAST .	<i>Assignments:</i> <i>Curriculum Integration Project</i> <i>Wiki Discussion Posts</i> <i>Publisher Report</i> <i>Readings</i>

<b><i>Blended Learning Assistive Technology Module 3</i></b>	<b>Friday #2 Assistive Technology Lab</b>	<b>Saturday #2 Multimedia and Project- Based Learning Module 4</b>
<i>Assignment and Discussion:</i>  <i>Learners with Intensive Special Needs in the Classroom</i>	5:00-5:30 pm Discussion - Program implementation issues  How the service delivery team works together?	8:30-9:30 am Discussion What is multimedia? What role does Internet play?
<i>Assignment and Discussion:</i>  <i>Learners with Communication Challenges &amp;/or Autism</i>	5:30-6:00 Dinner Break  6:00-7:30 <i>There's and App for that.</i> The Read/Write Web and UDL. Lab: Low tech/high tech solutions - a sequence of decisions  Adaptations and alternatives for the mouse and the keyboard adaptive curriculum access solutions stations	9:30-12:00 What are some of the equipment possibilities?  CD/DVD: curriculum, research tools & field trips  Digital photo & video cameras Scanners Image processing software  Sound digitizing/capture  MultiMedia PBL Activity
<i>Assignment and Discussion:</i>  <i>Individuals with Disabilities Using Technology in the Community</i>		12:00-1:00 Lunch Break
<i>Assignment and Discussion:</i>  <i>Resources, Guides, Models and Presentations</i>	7:30 – 10:00 pm Hands-on: AT and iPads	1:00 - 4:30 Hands-on with multimedia learning technologies  What software is useful?  Classroom implementation issues and implications Project-based cooperative work Authentic assessment
<b><i>Assignments Due for class on Friday &amp; Saturday #2</i></b> Edyburn, D (2007) <i>Technology Enhanced Reading Performance</i> . Reading Research Quarterly. ATsolutions - Family Center for Technology and Disabilities Bill Henderson (2004) <i>Struggling Decoders: Reading Fluently and Making Meaning of Text</i> . O'Hearn Elementary School. Boston.	<b>Explore</b> <i>Assistive Technology</i> binder section; <b>Read</b> “How To Support Students With Learning Differences - The Assistive Technology and Education Connection”	<b>Read</b> “ <i>Expanding the Literacy Toolbox</i> ” and